

PATENT

Docket No. 25864.00600

(Former Docket No. 38786.00069)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

EDWARD SHANBROM

Serial No.: 09/315,688

Filed: May 20, 1999

For: METHOD FOR QUANTIFYING
ANTIOXIDANT LEVELS IN FOOD
AND MEDICAL SPECIMENS

Examiner: K. Olson

Art Unit: 1744

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7/6/01

**DECLARATION OF WILLIAM JOHN OWENS
UNDER RULE 132 (37 CFR 1.132)**

I, WILLIAM JOHN OWENS, declare as follows:

1. I am a citizen of the United States and reside at 551 North Century Drive, Anaheim, California 92805.
2. I graduated from Long Beach State University in 1988 with a bachelor's degree in Microbiology. After graduation I worked for Microbiology Reference Labs in Cypress, California. I subsequently worked for four years at Irvine Scientific of Santa Ana, California performing laboratory tests.
3. I am presently employed as a staff research associate at the University of California, Irvine Medical Center where I act as a technical consultant for Dr. Edward Shanbrom, named inventor of the above-identified patent application. I have

worked with Dr. Shanbrom during the entire development of the above-referenced invention and am intimately familiar with the invention. With my laboratory background I have conducted numerous tests demonstrating the operation of the iodine test on dietary materials and biological fluids.

4. I have instructed numerous researchers in the use of the iodine test to monitor antioxidant levels in dietary items and biological fluids. A test was made in which the iodine method was compared to the well-known "ORAC" method on several "antioxidant" dietary products.

5. The attached graphs show the ratio between ORAC and iodine measurements on several products widely believed to have antioxidant properties. The iodine tests were carried out as described in the patent application while ORAC was carried out according to methods well known to those of skill in food sciences.

6. My belief is that if ORAC and iodine measurements track each other exactly, all the measurements will show the same ratio between iodine and ORAC measurements regardless of the quantity of antioxidants present in the sample. The actual results show a fairly tight scatter of ratios that becomes tighter after thirty minutes under reactions in weak ethanol. I believe that ethanol works by improving the solubility of some of the antioxidants. I believe that these results show that iodine and ORAC both measure "antioxidants" in a variety of food substances, and that the two methods are capable of producing results within 20% or so of each other.

7. Considering the relative expense and complexity of equipment required for the ORAC test I believe that the iodine measurement offers an economically viable and useful method to easily produce antioxidant measurements that reasonably

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track the more expensive and complex ORAC complex test.

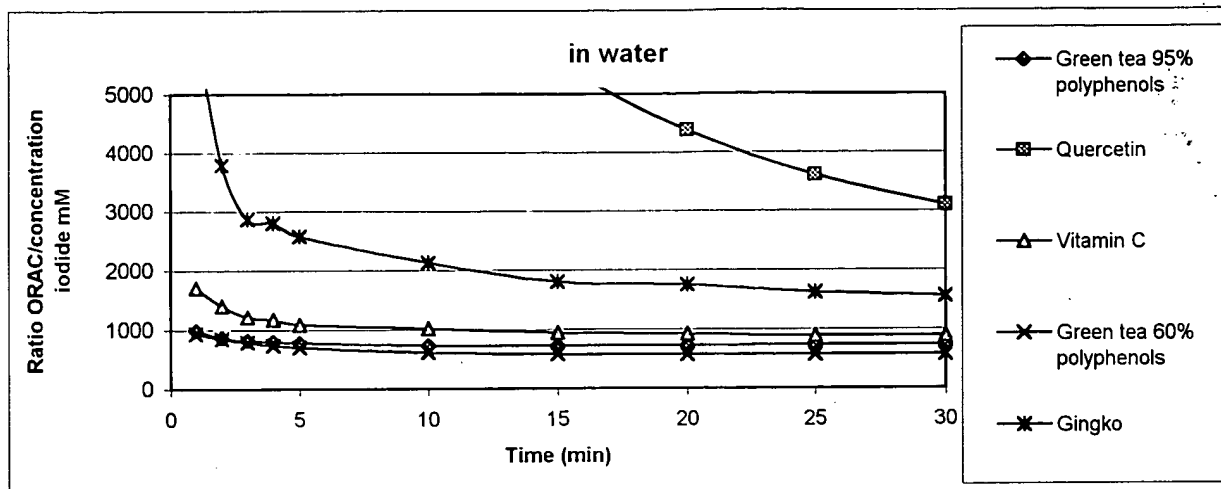
I hereby declare under penalty of perjury that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Executed this 18th day of June, 2001 at Anaheim, California.


William John Owens

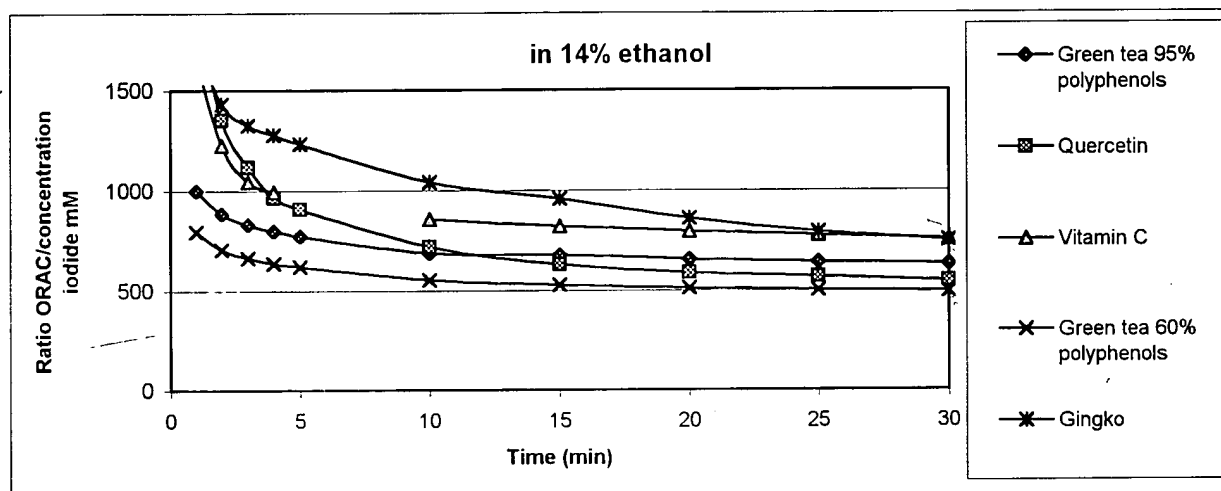
Page 4 shows the graphs.

Comparing ORAC and ISE techniques



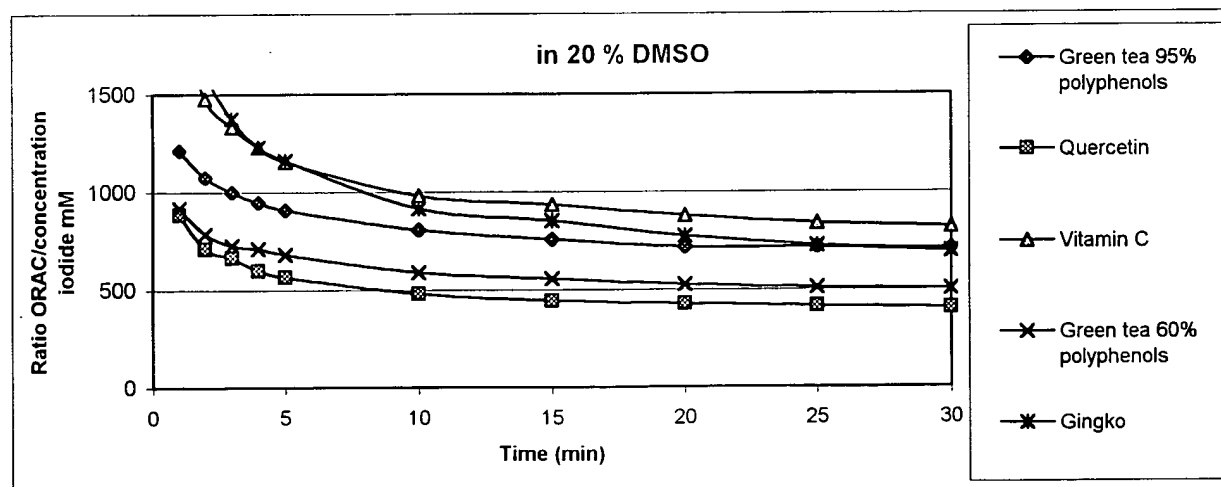
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CV : 75%



Average Ratio (at 30 min) : 634

CV : 19%



Average Ratio (at 30 min) : 627

CV : 27%